

INTO THE RIDE #31**The Stratus XP
A Dual 26” LWB**

by Randy Schlitter



Using a custom fork and pushing the geometry the dual 26” Stratus XP is fairly compact, only 3” longer overall than the standard Stratus.

I rode our Stratus 26 test bike for hundreds of miles in May and June — and I fell in love with this bike. The XP is fast, VERY comfortable and VERY smooth riding. - - Bob Bryant, from the upcoming RCN 090 Stratus XP review

Although it looks like the classic Stratus at a glance, the Stratus XP is actually a “from the ground up” design. The motivation for the XP was to explore dual 26” LWB configurations, with the intent to create a speed machine that would be novice friendly, and versatile.

The first drafts were based around a dual 26” V2, but as the design became more defined it looked more like a Stratus. In the process we found an ergonomic sweet spot, somewhere between the V2 and Stratus BB heights. You can really feel it when you kick up a hill, plus this BB height has several advantages:

- Great for entry level, easy starts and stops
- Less or no numb feet tendencies
- Less wind resistance
- Great for expert level, excellent performance

The Stratus XP changes the perception that a dual big wheel LWB has to be a long bike. In fact the XP is only 3” longer overall than the classic Stratus (see comparison table below). Scrunching the wheelbase down was a priority, because it lightens the bike and enhances handling and performance. To affect such a compact size for a dual big wheel LWB there is actually some wheel overlap, but you will never contact, since your foot would be in an unnatural position.

The alloy fork is a work of art, and is integral to making this bike work. Just adding this fork to a 20” front-wheeled LWB will not suffice, the head angle is critical as is the BB height. In combination with the alloy fork and other weight saving ideas the frameset ended up 2 pounds less than the classic Stratus frameset. All up weights are similar to the stock Stratus, so there is no weight gain going to dual 26”. One of our test bikes has Velocity Thracian wheels, and the featherweight cushion for an all up weight of 28.5. An all out performance version could drop below 26 pounds.



A custom fork with both canti and disc mounts is integral to making the Dual 26 Stratus XP a success.

Another significant departure from the Stratus frame is the “Y” braced chain stays, and an extra vertical tube emitting off the end of the main tube and intersecting the Y distinguish this frame. The extra bracing allowed a thinning of tube walls without loss in strength. Like the classic Stratus, the main tube slants downhill, over the full travel of the seat rail it drops .7”. The seat height will make the less leggy happy at 21”, that is measured considering the average compression of the seat cushion. Lower seat heights of up to 1.5” can be achieved using the feather-weight racing cushion, dropping to only 19.5”.

There is great debate about BB heights; what it really comes down to is personal preference. In my case I gravitate towards a lower BB, even knowing the aero benefits of the high BB, but if the engine isn't happy it's not going to run well. This BB height for many will be a high point of this bike. I found it to be an ergonomic sweet spot, just right for endurance, low drag, hard sprints, and easy in and out of the pedals. It is an easy climber since the BB height is in a place that makes engaging the quads natural.

A much cleaner idler setup also shaves weight, reduces effort, and stays quiet. Originally we used two idlers, but road testing showed only the lower needed. Frames are coming with the second mount, and may prove useful with certain gearing combos. Here is a summary of frame features:

- Front and rear disc brake mounts
- Y” chain stay bracing
- 2 Cantilever idler mounts

- Passive suspension
- Alloy fork
- Compact geometry for low tiller steering
- BB height optimum for performance and user friendly
- Two sizes, low seat height appealing to shorter riders

<i>Comparative Dimensions of RANS LWB Recumbents</i>				
	Wheelbase	Overall length	BB Height	Seat Height
Tailwind	61"	81"	18.5"	23"
Stratus	66.625"	89.625"	14"	21"
Stratus XP	68"	92.5"	16"	21"
V2	65"	88"	22"	18.5"



During the introductory offer, which will end September 1, 2005, you can order an XP with either the T-Bar or 3-way as a no cost option.

RANS' President, Randy Schlitter, surprised us with a prototype "Chopper" bar that is very similar to the old RANS "B" bar (on Stratus B models). The cool thing was that I had been begging and pleading for a return of the old "B" bar — and these bars are better than any bars we've seen before from RANS. - - Bob Bryant, from the upcoming RCN 090 Stratus XP review

Our first rides with the XP used a T-Bar. It works great, and has its own style. The T-Bar will adjust up and down, fore and aft, and can be fitted with a number of handlebars. The stock unit is the B-37 with

a special riser made for the XP. The new 3-way bar is also offered as a no-cost option and we will build up your bike with your choice of either bar. Both offer advantages to suit a rider's individual taste, but I like the 3-way bar. It is a lot like the chopper bars we put on the Stratus a couple decades ago. The style is one aspect of the chopper bar; the other is adjustability. The 3-way bar is so easy to dial in to your particular fit. Overall, either bar works great, and that is partly due to the fine handling of the bike in general. Currently bikes are shipping with 3-way bars with satin silver anodize, and will change to black with adjustor scales for easy reference side to side sometime in the fall of '05.



The XP has the uncanny characteristic of fast yet smooth riding due the balance of passive frame design and stiffness where it counts for power extraction.

RIDING THE XP

Mounting the Stratus XP will seem familiar as the seat height is the same as the classic Stratus, but strapping into the pedals you will notice the BB is a bit higher by 2”.

As you ride the XP you will instantly notice the tracking is arrow straight. The factors that add to this are the larger front wheel, head angle, fork rake, and weight loading on the wheels. Anything above 4 MPH it is a hands-off bike. Even driving hard does not impart any pedal steer. With either handlebar tiller can be more or less. This can impact your first impression, so make sure you have adjusted the bars to a position for best fit.

Acceleration is more than acceptable, but keeping your speed up is where this big wheel bike shines. I found I was in two gears higher over the classic Stratus for the same effort. To be fair I was running Thracian Velocity wheels with 120-PSI tires. But it really did feel like the afterburner was on.

Hills are flattened pretty easily, when approached with some inertia. Kicking in the quads really helps, and that nice BB height makes it easy.

Down hill hold on! The stability and rolling ease combine to make this a top gear experience. Drag is lower than the classic Stratus, due to the slight up shift in BB location. We are going to offer a handlebar fairing much like the one used on the first chopper bars of yesteryear. Large fairings can be cumbersome. Kansas is a good proving ground for things like fairings, and experience has taught us to limit the size to increase the utility. The fairing will be fabric, compact, but able to stow a few items.

Handling is another place this bike excels. Maybe it is the collective combination of the passive suspension, frame layout, and big wheels, but it behaves well in corners, straight line, and panic moves.

This is a way for "the rest of us" to get in on big wheel recumbents. For the go-fast crowd, the big issue is aerodynamics, and that is a big part of the success of the high racers, much more so than any improvement in rolling resistance that comes with the big wheels. But big wheels give a bike a different feel, and now that feel is available to those who, for one reason or another, can't comfortably ride a high racer. - - John Riley, from the upcoming RCN 090 Stratus XP review.

What purpose you buy the Stratus XP for may vary, but that is the point; it is a versatile platform that will do many things very well. I am sure many will see touring the main role, but with 26" wheels, and all the tire and brake choices, I can see XP's setup from a balloon-tired, disc brake ride, to an all out speedster with tail boxes, body socks, and high end gear. It shoulders pretty hard against our V2 Formula for fastest LWB, and in time may hedge into first place.

The stock machine is good level components, which make it a fine machine right out of the box. As a partner to compliment our classic Stratus, I see this bike performing well in this role. Quality rolls with this machine made by our craftsmen right here in grand old windy Kansas, and you will see that once you get into the ride. Until next month keep riding and stay into the ride!-RJS



It is assumed a dual 26" LWB has to be huge, the Stratus XP is actually only 3" longer overall than the Classic Stratus.

CUSTOMIZING YOUR XP

With the introduction of the Stratus XP we are also offering custom ordering options to allow you to tailor your bike to your needs. Available options added to base prices, see [SHOP RANS](#) for sold-separate prices.



The big wheel feel is something you have to experience, arrow straight tracking and a roll-on forever feeling.

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